



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/633,249 | 07/31/2003 | Kenneth J. Ouimet | 2297-050CON | 4787 |
| 7590 | 11/16/2004 | | EXAMINER | |
| Meschkow & Gresham, PLC Suite 409 5727 N. 7th Street Phoenix, AZ 85014 | | | COSIMANO, EDWARD R | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3629 | |

DATE MAILED: 11/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|--------------------------------|--------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 10/633,249 | OUIMET, KENNETH J. |
| | Examiner Edward R. Cosimano | Art Unit 3629 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 04 August 2004.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-7 and 9 is/are pending in the application.

4a) Of the above claim(s) none is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-7 and 9 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 7/31/03 & 8/4/04 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

- Certified copies of the priority documents have been received.
- Certified copies of the priority documents have been received in Application No. _____.
- Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____

5) Notice of Informal Patent Application (PTO-152)

6) Other: _____

1. Applicant should note the changes to patent practice and procedure:
 - A) effective December 01, 1997 as published in the Federal Register, Vol 62, No. 197, Friday October 10, 1997;
 - B) effective November 07, 2000 as published in the Federal Register, Vol 65, No. 54603, September 08, 2000; and
 - C) Amendment in revised format, Vol. 1267 of the Official Gazette published February 25, 2003.
2. Applicant's claim for the benefit of an earlier filing date under 35 U.S.C. § 119(e) and 35 U.S.C. § 120 is acknowledged.
3. The proposed drawing correction filed 04 August 2004 has been approved.
- 3.1 The combined sheets of drawings filed 31 July 2003 and 04 August 2004 are acceptable.
4. The disclosure is objected to because of the following informalities:
 - A) applicant must update:
 - (1) the continuing data on page 1,
with the current status of each of the referenced applications, e.g., --now abandoned--, or --now patent #?--, or --which is abandoned and now serial number #?--, etc.
- Appropriate correction is required.
5. The specification and drawings have not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification or drawings. Applicant should note the requirements of 37 CFR § 1.74, § 1.75, § 1.84(o,p(5)), § 1.121(a)-1.121(f) & § 1.121(h)-1.121(i).
6. Claims 1-7 & 9 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
 - 6.1 In regard to claims 1-5 & 9, although one of ordinary skill at the time of the invention would have known how to accomplish the recited actions/functions from the language of these claims, one of ordinary skill could not determine from the language of these claims whether or

not they are making and/or using the claimed invention, since from the language of these claims it is unclear:

A) in regard to claim 1, lines 6-9, because the limitations recited in these lines do not require that the “primary objective function” being used actually be related to the “set of operational variables” in such a manner that the “set of operational variables” would either:

(1) permit the “primary goal” to be achieved or not achieved; or

(2) be related to the “primary goal” so that these variables would be an indication and/or measure of the enterprise’s progress towards the “primary goal”.

B) in regard to claim 1, lines 10-12, because the limitations recited in these lines do not require that the “strategic constraint function” be related to either:

(1) the “subset of operational variables” in such a manner that the “subset of operational variables” would either:

(a) permit the “strategic constraint” to be achieved; or

(b) be related to the “strategic constraint” so that these variables would be an indication and/or measure of the enterprise’s progress towards or within the “strategic constraints”; or

(2) the “primary goal” in such a manner that the “strategic constraints” would either:

(a) permit the “primary goal” to be either achieved or not achieved; or

(b) be related to the “primary goal” so that the “strategic constraints” would either affect or provide an indication and/or measure of the enterprise’s progress towards the “primary goal”.

C) in regard to claim 1, lines 13-15, because the limitation recited in these lines does not require that the “target values” being used to “optimize the primary objective function” actually be related to the “primary goal” in such a manner that the “target values” would either:

- (1) permit the “primary goal” to be achieved or not achieved; or
- (2) be related to the “primary goal” so that these “target values” would be an indication and/or measure of the enterprise’s progress towards the “primary goal”; or
- (3) provide an optimized “primary objective function” for the intended purpose, that is optimized to either:

- (a) a least or smallest or minimum outcome; or
- (b) largest or highest or maximum outcome; or
- (c) some outcome between the smallest and largest.

D) in regard to claim 1, lines 16-18, because the limitation recited in these lines does not require that the “target values” being used to determine the “outcomes” actually be related to the “primary goal” in such a manner that the “target values” would either:

- (1) permit the “primary goal” to be achieved or not achieved; or
- (2) be related to the “primary goal” so that these “target values” would be an indication and/or measure of the enterprise’s progress towards the “primary goal”; or
- (3) permit one of ordinary skill to select the appropriate outcomes of interest.

E) in regard to claim 1, lines 19-23, because the limitation recited in these lines does not require that the “constraint function” be related to the “primary objective function”, the graphical view can not be a visualization of the effect of the “constraint function” on the “primary objective function”.

F) in regard to claim 2, how the “target values” can represent a “scenarios for said strategic constraint”, because the “target values” are not related to the “subset of operational variables” and hence can not represent a “scenarios for said strategic constraint”.

G) in regard to claim 3, what provides the “set of operational decisions for the operation variables that optimize said primary goal while concurrently satisfying said

strategic constraint”, because the “target values” are not related to the “subset of operational variables” and, hence, can not represent either a “scenarios for said strategic constraint”, or a set of “scenarios for said strategic constraint”.

H) in regard to claim 4, how, when why and under what conditions any particular scenario may be targeted over any of the other scenarios so that the operational decisions may be obtained.

I) in regard to claim 5, lines 5-8, how the “effective objective function” that is dependent on a “set of operational variables” and is a combination of the “primary objective function” and the “constraint function”, may be formed, since as recited in claim 1 the “constraint function” is dependent on a “subset of operational variables” while “primary objective function” is dependent on the “set of operational variables”, hence the combination of the “constraint function” and “primary objective function” may not contain all of the require “operational variables”.

J) in regard to claim 5, lines 9-12, because the limitation recited in these lines does not require that the “target values” being used to “optimize the effective objective function” actually be related to the “primary goal” or “effective objective function” in such a manner that the “target values” would either:

(1) permit the “primary goal” or “effective objective function” to be achieved or not achieved; or

(2) be related to the “primary goal” or “effective objective function” so that these “target values” would be an indication and/or measure of the enterprise’s progress towards the “primary goal”; or

(3) provide an optimized “primary objective function” or “effective objective function” for the intended purpose, that is optimized to either:

(a) a least or smallest or minimum outcome; or

(b) largest or highest or maximum outcome; or

(c) some outcome between the smallest and largest; or

(4) permit one of ordinary skill to select the appropriate outcomes of interest.

K) in regard to claim 6, whether the weighting factors are associated with either:

- (1) each operational variable in the constraint function; or
- (2) one or more of the determined results of the constraint function.

L) in regard to claim 9, because the limitation recited in these lines does not require that the "target values" being used to determine the "outcomes" actually be related to the "primary goal" in such a manner that the "target values" would either:

- (1) permit the "primary goal" to be achieved or not achieved; or
- (2) be related to the "primary goal" so that these "target values" would be an indication and/or measure of the enterprise's progress towards the "primary goal"; or
- (3) permit one of ordinary skill to select the appropriate outcomes of interest.

M) in regard to claim 9, because the limitation recited in these lines does not require that the "strategic constraint function" be related to the "primary objective function", the graphical view can not be a visualization of the dependence of the "primary objective function" on the "target values of the "constrain function".

6.2 Claims not specifically mentioned above, inherit the defects of the base claim through dependency. For the above reason(s), applicant has failed to particularly point out what is regarded as the invention.

7. 35 U.S.C. § 101 reads as follows:

"Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title".

7.1 Claims 1-7 & 9 are rejected under 35 U.S.C. § 101 because the invention as claimed is directed to non-statutory subject matter.

7.1.1 The instant claims recite a computer based method comprising a series of steps to be performed on a computer, (claims 1-7 & 9), which has a disclosed practical application in the technological or useful arts. Further, the instant claims do not merely define either a computer

program, a data structure, non-functional descriptive material, (i.e. mere data) or a natural phenomenon.

7.1.2 In regard to claims 1-7 & 9, the invention as set forth in these claims merely describes:

- A) selecting a primary goal for an enterprise which is represented by an objection function based on a set of operational values;
- B) representing a strategic constraint as a constraint function which is based on a subset of operational values;
- C) optimizing the objective function using target values for the constraint function; and
- D) using the results of the optimization to graphically represent the effect of the target values and constraint function on the selected primary goal of the enterprise.

However, the process as recited in these claims does not apply the result of either the claim as a whole or the manipulations of data as recited in these claims in such a manner so as to be tangibly used in a concrete manner and hence to produce a useful concrete and tangible result, that is a concrete and tangible application with in the technological or useful arts.

7.1.3 It is further noted that applicant has not recited in these claims a specific process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, which is either:

- A) altered or changed or modified by the invention recited in claims; or
- B) utilizes the result of the invention recited in these claims; or
- C) is operated or controlled by the result of the invention recited in these claims.

7.1.4 It is further noted in regard to claims 1-7 & 9, that as claimed applicant has not claimed:

- A) pre computer processing, since the claims fail to recited that the data, which originates from an unknown source, is manipulated or transformed/changed before it is processed; or
- B) post computer processing, since the claims fail to recited that the data which represents the result of the claimed manipulation, is neither manipulated nor used nor changed by any device after it has been processed; or

- C) a practical use of the claimed invention by any physical system or device or method outside of a statement of the intended use of the claimed invention; or
- D) process steps or physical acts/operations that would affect the internal operation of a computer/machine as were found to be statutory in either In re McIlroy 170 USPQ 31 (CCPA, 1971) or In re Waldbaum 173 USPQ 430 (CCPA, 1972); or
- E) process steps or physical acts/operations that would be considered as going beyond the manipulation of “abstract ideas” as were found to be non-statutory in In re Warmerdam 31 USPQ2d 1754 (CAFC, 1994); or
- F) a concrete and tangible practical application of either:
 - (1) the invention as a whole; or
 - (2) the final results of the manipulations/actions with in the technological or useful arts;

note In re Sarkar 200 USPQ 132 (CCPA, 1978) where the process step of “constructing said obstruction within the actual open channel at the specified adjusted location indicated by the mathematical model” was held to be so tenuous connected to the remaining process steps as to not be a process with in the scope of 35 U.S.C. § 101.

Hence, the invention of claims 1-7 & 9 is merely directed to an hypothetical mental exercise that manipulates an abstract idea of optimizing a primary goal of an enterprise to determine multiple outcomes that are never used or implemented by the claimed invention and hence are with out a claimed concrete and tangible practical application of the abstract idea, (note In re Beauregard 35 USPQ2d 1383 (CAFC 1995) and the associated claims of U.S. Patent 5,710,578; and State Street Bank & Trust Co. v. Signature Financial Group Inc. 47 USPQ2d 1596 (CAFC 1998)).

7.1.5 It is further noted that the type/nature of either the data or the calculated numbers does not affect the operation of the claimed invention and hence are considered to be non function descriptive material, (note In re Gulack, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983)).

7.1.6 In practical terms, claims define nonstatutory processes if they:

A) consist solely of mathematical operations without some claimed practical application (i.e., executing a “mathematical algorithm”); or

B) simply manipulate abstract ideas, e.g., a bid (Schrader, 22 F.3d at 293-94, 30 USPQ2d at 1458-59) or a bubble hierarchy (Warmerdam, 33 F.3d at 1360, 31 USPQ2d at 1759),

without some claimed practical application of the mathematics or abstract idea.

7.1.7 In view of the above analysis claims 1-7 & 9, as a whole, are directed to an hypothetical mental exercise that merely manipulates mathematics or an abstract idea without a claimed practical application of the mathematics or abstract idea, and hence are directed to non-statutory subject matter.

7.2 Claims 1-7 & 9 are rejected under 35 U.S.C. § 101 because the invention as claimed is directed to non-statutory subject matter, since they recite a series of inoperative steps and hence are not a statutory process.

7.2.1 As set forth by the Court in:

A) In re Musgrave 167 USPQ 280 at 289-290 (CCPA 1970), “We cannot agree with the Board that these claims (all the steps of which can be carried out by the disclosed apparatus) are directed to non-statutory processes merely because some or all of the steps therein can also be carried out in or with the aid of the human mind or because it may be necessary for one performing the process to think. All that is necessary, in our view, to make a sequence of operational steps a statutory “process” within 35 U.S.C. 101 is that it be in the technological arts so as to be in consonance with the Constitutional purpose to promote the progress of “useful arts.” Cons. Art. 1, sec. 8.”, {emphasis added}; and

B) In re Sarkar 100 USPQ 132 @ 136-137 (CCPA 1978), echoing the Board of Appeals stated in regard to claim 14 “14. A method of locating an obstruction in an open channel to affect flow in a predetermined manner comprising:

- a) obtaining the dimensions of said obstruction which affect the parameters of flow;
- b) constructing a mathematical model of at least that portion of the open channel in which said obstruction is to be located in accordance with the method of claim 1 using those dimensions obtained in step (a) above;
- c) adjusting the location of said obstruction within said mathematical model until the desired effect upon flow is obtained in said model; and thereafter
- d) constructing said obstruction within the actual open channel at the specified adjusted location indicated by the mathematical model.”;

and “Concerning claims 14-39 and the significance of "post-solution activity," like building a bridge or dam, the board concluded: While it is true that the final step in each of these claims makes reference to the mathematical result achieved by performing the prior recited steps, we consider the connection to be so tenuous that the several steps recited in each claim when considered as a whole do not constitute a proper method under the statute.”, {emphasis added}.

7.2.2 Further, it is noted in regard to claims 14-39 of Sarkar, although step (d) of claim 14 of Sarkar references the result of step (c) of claim 14 of Sarkar it is clear from the language of step (c) of claim 14 of Sarkar that multiple adjustments to the location of the obstruction are required to be made until a location with the desired effect has been determined. Hence, the reference to constructing the obstruction at the “specified adjusted location” in step (d) of claim 14 of Sarkar is vague, indefinite and unclear in regard to which one of the possible multiple adjusted locations of the obstruction that were used during step (c) of claim 14 of Sarkar would be used when constructing the obstruction as required by step (d) of Sarkar. Therefore, without a clear connection between step (d) of Sarkar and the remaining steps of claim 14 of Sarkar, the Board of Appeals and the Court held that these claims were not a process within the meaning of process as used in 35 U.S.C. § 101 and hence were directed to non statutory subject matter.

7.2.3 As can be seen from claims 1-7 & 9, these claims are directed to a series of steps/actions/functions, in which as set forth above in regard to the rejection of claims 1-7 & 9 under 35 U.S.C. § 112 2nd paragraph, the recited limitations are not clearly interconnected to one another and therefore do not provide a useful method/process with in the meaning of process as used in 35 U.S.C. § 101.

7.3 Claims 1-7 & 9 are rejected under 35 U.S.C. § 101 because the invention as claimed is directed to non-statutory subject matter, since they fail to comply with the “requirements this title, namely 35 U.S.C. § 112 2nd paragraph as set forth above and 35 U.S.C. § 102 as set forth below.

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8.1 Claims 1-7 & 9 are rejected under 35 U.S.C. § 102(b) as being clearly anticipated by O'Brien (WO 95/26007).

8.1.1 In regard to claims 1-5, 7 & 9, O'Brien ('007) teaches selecting a primary goal of, i.e., travel model, that would minimize the travel/economic costs incurred by an enterprise in the normal course of conducting it's business. That is the primary goal or objection function would include considerations about business related travel requirements for example. Whereas

as strategic constraint function would be bounded or limited by target values such as the economic/fiscal resources of the enterprise as well as any operational constraints of the enterprise. When these two function are combined to optimize the selected primary goal of the enterprise, then the result would be one or more different models/scenarios that would satisfy the primary goal of the enterprise. Where if multiple scenarios result, then the resultant scenarios must be present to someone or something in a suitable form so that the scenario that if implemented would achieve the primary goal of the enterprise may be selected.

8.1.2 In regard to claim 6, since some business trips may be of more importance to the enterprise than other business trips, it would be inherent that the operational constraints of the enterprise in O'Brien ('007) would use some sort of weighting scheme in order to distinguish the priority of a particular business trip.

8.2 Claims 1-7 & 9 are rejected under 35 U.S.C. § 102(e) as being clearly anticipated by Kosiba et al (2002/0184069).

8.2.1 In regard to claims 1-5, 7 & 9, Kosiba et al ('069) teaches selecting a primary goal of, i.e., hiring model, that would minimize the hiring/economic costs incurred by an enterprise in the normal course of conducting it's business. That is the primary goal or objection function would include considerations about available space and work loads/requirements of the enterprise for example. Whereas as strategic constraint function would be bounded or limited by target values such as the economic/fiscal resources of the enterprise as well as any operational constraints of the enterprise. When these two function are combined to optimize the selected primary goal of the enterprise, then the result would be one or more different models/scenarios that would satisfy the primary goal of the enterprise. Where if multiple scenarios result, then the resultant scenarios must be present to someone or something in a suitable form so that the scenario that if implemented would achieve the primary goal of the enterprise may be selected.

8.2.2 In regard to claim 6, since some position in a business may be of more importance to the enterprise than other positions with in the business, it would be inherent that the operational constraints of the enterprise in Kosiba et al ('069) would use some sort of

weighting scheme in order to distinguish the priority of a particular position within the business over another position within the business.

9. Response to applicant's arguments.

9.1 All rejections and objections of the previous Office action not repeated or modified and repeated here in have been over come by applicant's last response.

9.1.1 A clean version of the abstract submitted 04 August 2004 can not be located with in the instant file, hence applicant is requested to submit a clean version in response to this office action.

9.2 As per the 35 U.S.C. § 101 rejection, since:

A) it is noted that in regard to claim 5 of In re Abele and Marshall 214 USPQ 682 (CCPA,1982) the display of calculated information is not deemed to be a concrete and tangible result and therefore the invention is directed solely to an abstract idea. Hence, applicant's arguments are non persuasive.

9.2 As per the 35 U.S.C. § 102 rejection, since:

A) it is noted that in regard to claim 5 of In re Abele and Marshall 214 USPQ 682 (CCPA,1982) the display of calculated information is not deemed to be a concrete and tangible result and therefore the invention is directed solely to an abstract idea, hence this is deemed to be non function descriptive material. Nonfunctional descriptive material cannot render nonobvious an invention that would have otherwise been obvious. Cf. In re Gulack, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983) (when descriptive material is not functionally related to the substrate, the descriptive material will not distinguish the invention from the prior art in terms of patentability). Common situations involving nonfunctional descriptive material are:

- a computer-readable storage medium that differs from the prior art solely with respect to nonfunctional descriptive material, such as music or a literary work, encoded on the medium;

- a computer that differs from the prior art solely with respect to nonfunctional descriptive material that cannot alter how the machine functions (i.e., the descriptive material does not reconfigure the computer), or

- a process that differs from the prior art only with respect to nonfunctional descriptive material that cannot alter how the process steps are to be performed to achieve the utility of the invention.

Hence, applicant's arguments are non persuasive.

10. The shorten statutory period of response is set to expire 3 (three) months from the mailing date of this Office action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward Cosimano whose telephone number is (703) 305-9783. The examiner can normally be reached Monday through Thursday from 7:30am to 6:00pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Weiss, can be reached on (703)-308-2702. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-1113.

- 11.1 The fax phone number for UNOFFICIAL/DRAFT FAXES is (703) 746-7240.
- 11.2 The fax phone number for OFFICIAL FAXES is (703) 872-9306.
- 11.3 The fax phone number for AFTER FINAL FAXES is (703) 872-9306.

11/09/04


Edward R. Cosimano
Primary Examiner A.U. 3629